What is claimed is:

1. A network system comprising:

a computer;

a switch that is connected to said computer via a network;

a first storage device that is connected to said switch via the network; and

a second storage device that is connected to said switch via the network;

wherein said switch beforehand transfers data stored in said first storage device to said second storage device;

said computer issues a read request for the data stored in said first storage device;

when receiving said read request, said switch converts said read request for the data stored in said first storage device into a data read request to said second storage device, and then transmits the converted data read request to said second storage device;

when receiving said data read request, said second storage device transfers data corresponding to the received data read request to said switch; and

when receiving the data, said switch transfers the received data to said computer as data transferred from said first storage device.

2. A network system according to claim 1, further comprising a second computer that is connected to said switch;

wherein said switch transfers data stored in said first storage device to said second storage device according to an instruction from said second computer.

3. A network system according to claim 1, wherein:

when converting the data read request to said first storage device into the data read request to said second storage device, said switch converts information indicating a source of said data read request into another information, and then transmits the converted data read request including the another information to said second storage device; and

when receiving, from said second storage device, data corresponding to the converted data read request, said switch converts said another information included as a destination of the data into information used for said computer.

4. A network system comprising:

a computer;

a switch that is connected to said computer via a network;

a first storage device that is connected to said switch via the network; and

a second storage device that is connected to said switch via the network;

wherein said switch beforehand transfers data stored

in said first storage device to said second storage device;

said switch provides said computer with a third storage device corresponding to said first storage device, said third storage device being a virtual storage;

said computer issues a data read request to said third storage device;

when receiving said data read request, said switch converts the data read request to said third storage device into a data read request to said second storage device, and then transmits the converted data read request to said second storage device;

when receiving said data read request, said second storage device transfers, to said switch, data corresponding to the received data read request; and

when receiving the data, said switch transfers the received data to said computer as data transferred from said third storage device.

5. A network system according to claim 4, wherein a domain address that is the same as that of said second storage device is assigned to said third storage device that is the virtual storage.

6. A network system comprising:

a computer;

a first storage device that is connected to said computer via a network; and

a second storage device that is connected to said computer via the network;

wherein said second storage device comprises a switch unit that is connected to said computer and said first storage device via the network, and a storage unit that is connected to said switch unit via an internal network;

said switch unit beforehand transfers data stored in said first storage device to said storage unit;

said computer issues a read request for the data stored in said first storage device;

when receiving said read request, said switch unit converts the read request for the data stored in said first storage device into a data read request to said storage unit, and then transmits the converted data read request to said storage unit;

when receiving said data read request, said storage unit transfers, to said switch unit, data corresponding to the received data read request; and

when receiving the data, said switch unit transfers the received data to said computer as data transferred from said first storage device.

7. A network system comprising:

a computer;

a switch that is connected to said computer via a network;

a first storage device that is connected to said switch via the network; and

a second storage device that is connected to said switch via the network;

wherein said computer issues a read request for the data stored in said first storage device;

when said switch receives said read request, if the data stored in said first storage device is stored in said second storage device, said switch converts said read request for the data stored in said first storage device into a data read request to said second storage device, and then transmits the converted data read request to said second storage device, whereas if the data stored in said first storage device is not stored in said second storage device, said switch transmits said read request to said first storage device without converting said read request for the data;

when receiving said data read request, said second storage device transfers, to said switch, data corresponding to the received data read request; and

when receiving the data, said switch transfers the received data to said computer as data transferred from said first storage device.

8. A network system according to claim 7, wherein said switch has information indicating whether or not data stored in said first storage device is stored in said second storage

device.

9. A network system according to claim 8, wherein if the data stored in said first storage device is not stored in said second storage device, said switch transfers the data that has been transferred from said first storage device, to said second storage device in response to said read request for the data, and then updates said information.

10. A network system according to claim 9, wherein when said switch transfers the data that has been transferred from said first storage device, to said second storage device, if an amount of free storage capacity in said second storage device is not enough to store the data, said switch deletes some amount of data currently stored in said second storage device in a manner that data with the least frequency of use by said computer is deleted first, thereby transfers the data to said second storage device, and then updates said information.

11. A switch that is connected to a computer, a first storage device, and a second storage device, said switch comprising:

a port unit that is connected to an external device;

a converter for converting commands and data which have been received by said port unit; and

a switch unit for relaying said command and said data according to address information;

wherein said converter beforehand transfers data stored in said first storage device to said second storage device, and when receiving from said computer an access request for the data stored in said first storage device, said converter converts the access request into an access request to said second storage device;

said switch unit transmits to said second storage device through said port unit the access request to said second storage device; and

when receiving data corresponding to said access request from said second storage device, said converter converts the data into data transmitted from said first storage device, and then transfers the converted data to said computer.

12. A switch according to claim 11, wherein a second computer is connected to said switch, and said converter transfers the data stored in said first storage device to said second storage device according to an instruction from said second computer.